§170.125 Operating information for a vessel engaged in lifting.

In addition to the information required in §170.110, the following information must be included in the stability booklet of a vessel that is required to comply with §173.005 of this subchapter:

- (a) Non-counterballasted vessel. If a vessel is not counterballasted, stability information setting forth hook load limits corresponding to boom radii based on the intact stability criterion in §173.020 must be provided.
- (b) Counterballasted vessel. If a vessel is counterballasted with water, the following information must be provided:
- (1) Instructions on the effect of the free surface of the counterballast water.
- (2) Instructions on the amounts of counterballast needed to compensate for hook load heeling moments.
- (3) If a vessel has fixed counterballast, a table of draft versus maximum vertical moment of deck cargo and hook load combined.
- (4) If a vessel has variable counterballast, a table of draft versus maximum vertical moment of deck cargo and hook load combined for each counterballasted condition.

§ 170.135 Operating information for a vessel with Type III subdivision.

- (a) In addition to the information required in 46 CFR 170.110, the stability booklet of a passenger vessel with Type III subdivision must contain the information required by Regulation 8(b) of IMO Resolution A.265 (VIII) (incorporated by reference; see 46 CFR 170.015).
- (b) International Maritime Organization Resolution A.265 (VIII) is incorporated by reference into this part.
- (c) As used in IMO Resolution A.265 (VIII), *Administration* means the Commandant, U. S. Coast Guard.

[CGD 79–023, 48 FR 51010, Nov. 4, 1983, as amended by USCG–2003–16630, 73 FR 65203, Oct. 31, 2008]

Subpart E-Weather Criteria

§ 170.160 Specific applicability

- (a) Except as provided in paragraphs (b) and (c) of this section, this subpart applies to each vessel.
- (b) This subpart does not apply to any of the following vessels unless the stability of the vessel is questioned by the OCMI:
- (1) A deck cargo barge that complies with the requirements in §174.020 of this chapter.
- (2) A tank vessel that only carries a product listed in §30.25–1 of this chapter and that is—
 - (i) Less than 150 gross tons; or
- (ii) A tank barge that operates only in river or lakes, bays, and sounds service.
- (3) A sailing school vessel that is an open boat that complies with the requirements in §173.063(e) of this subchapter.
- (c) This subpart does not apply to the following vessels:
- (1) A tank barge that carries a product listed in Table 151.05 of this chapter.
 - (2) A mobile offshore drilling unit.
- (3) A vessel that performs the test required by \$178.330 of this chapter.

[CGD 79-023, 48 FR 51010, Nov. 4, 1983, as amended by CGD 83-005, 51 FR 923, Jan. 9, 1986; CGD 85-080, 61 FR 944, Jan. 10, 1996; USCG-2007-29018, 72 FR 53968, Sept. 21, 2007; USCG-2009-0702, 74 FR 49239, Sept. 25, 2009]

§ 170.170 Calculations required.

(a) Each vessel must be shown by design calculations to have a metacentric height (GM) that is equal to or greater than the following in each condition of loading and operation:

$$GM \ge \frac{PAH}{W \tan (T)}$$

Where—

 $P {=} .005 {+} (L/14,200)^2 \ tons/ft^2 \ldots$ for ocean service, Great Lakes winter service, or service on exposed waters.

 $\begin{array}{lll} P\text{=.}055\text{+}(\text{L/}1309)^2 & metric & tons/m^2 \dots \text{ for} \\ \text{ocean service, Great Lakes winter service,} \\ \text{or service on exposed waters.} \end{array}$

P=.0033+(L/14,200)² tons/ft² . . . for Great Lakes summer service or service on partially protected waters.